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**D5491-042**  
**Job Sheet 196245**



**Part No:** D5491-042

**Job Qty:** 7 pcs

**Part Name:** Step Assembly



**Part Weight:** 0 lbs

**Status:** New

**Priority:** Medium

**Job Created:** 6/10/19

**Job Tracking No:**

**Due Date:** 6/28/19

**Created By:** Marie Lajeunesse

**Type:** SOLD

**Description:**

**Note:** D5491 REV:B IPP REV:A 18.04.04 NEW ISSUE DD VERF:JFS IPP REV:B 18/08/03 AS PER DWG REV.B  
JFS VERF BY:DP

**Ship Via:**

### Bill of Materials

### Job Routing

| Op No | Operation             | Qty   | Start Date | Due Date | Standard  |         | Workcenter/Supplier   |           | Sign-off                                    |
|-------|-----------------------|-------|------------|----------|-----------|---------|-----------------------|-----------|---------------------------------------------|
|       |                       |       |            |          | Setup Hrs | Run Hrs | Workcenter / Supplier | Lead Time |                                             |
| 110   | Small Fab - 1         | 7 pcs | 6/28/19    |          | 0.00      | 58.33   | Small Fab - 1         |           | SMB<br>19/7/18                              |
|       |                       |       |            |          |           |         | Small Fab - 2         |           |                                             |
|       |                       |       |            |          |           |         | Small Fab - 3         |           |                                             |
|       |                       |       |            |          |           |         | Small Fab - 4         |           |                                             |
|       |                       |       |            |          |           |         | Small Fab - 5         |           |                                             |
|       |                       |       |            |          |           |         | Small Fab - 6         |           |                                             |
|       |                       |       |            |          |           |         | Small Fab - 7         |           |                                             |
| 120   | QC 5                  | 7 pcs | 6/28/19    |          | 0.00      | 0.00    | QC 5 - 10             |           | DAS<br>40<br>JUL 22 2019 9-89<br>AL 19-7-23 |
|       |                       |       |            |          |           |         | QC 5 - 12             |           |                                             |
|       |                       |       |            |          |           |         | QC 5 - 17             |           |                                             |
|       |                       |       |            |          |           |         | QC 5 - 18             |           |                                             |
|       |                       |       |            |          |           |         | QC 5 - 19             |           |                                             |
|       |                       |       |            |          |           |         | QC 5 - 22             |           |                                             |
|       |                       |       |            |          |           |         | QC 5 - 24             |           |                                             |
|       |                       |       |            |          |           |         | QC 5 - 3              |           |                                             |
|       |                       |       |            |          |           |         | QC 5 - 43             |           |                                             |
|       |                       |       |            |          |           |         | QC 5 - 49             |           |                                             |
|       |                       |       |            |          |           |         | QC 5 - 51             |           |                                             |
|       |                       |       |            |          |           |         | QC 5 - 58             |           |                                             |
|       |                       |       |            |          |           |         | QC 5 - 68             |           |                                             |
|       |                       |       |            |          |           |         | QC 5 - 9              |           |                                             |
|       |                       |       |            |          |           |         | QC 5 - 50             |           |                                             |
|       |                       |       |            |          |           |         | QC 5 - 30             |           |                                             |
|       |                       |       |            |          |           |         | QC 5 - 40             |           |                                             |
| 130   | Spray Paint - 2 - B4B | 7 pcs | 6/28/19    |          | 0.00      | 3.50    | Spray Paint - 1 - B4B |           | AL 19-7-23                                  |
|       |                       |       |            |          |           |         | Spray Paint - 2 - B4B |           |                                             |
|       |                       |       |            |          |           |         | Spray Paint - 3 - B4B |           |                                             |
|       |                       |       |            |          |           |         | Spray Paint - 4 - B4B |           |                                             |
| 140   | QC 14                 | 7 pcs | 6/28/19    |          | 0.00      | 0.00    | QC 14 - 15            |           |                                             |
|       |                       |       |            |          |           |         | QC 14 - 2             |           |                                             |

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|                                    |       |         |      |      |                          |                 |
|------------------------------------|-------|---------|------|------|--------------------------|-----------------|
|                                    |       |         |      |      | QC 14 - 34               |                 |
|                                    |       |         |      |      | QC 14 - 41               |                 |
|                                    |       |         |      |      | QC 14 - 51               |                 |
|                                    |       |         |      |      | QC 14 - 58               |                 |
|                                    |       |         |      |      | QC 14 - 59               |                 |
|                                    |       |         |      |      | QC 14 - 9                |                 |
|                                    |       |         |      |      | QC 14 - 68               |                 |
|                                    |       |         |      |      | QC 14 - 40               | JUL 31 2019     |
|                                    |       |         |      |      | QC 14 - 19               |                 |
|                                    |       |         |      |      | QC 14 - 43               |                 |
| QC 14 - 24                         |       |         |      |      |                          |                 |
| 150 Handfinish - 3-1- WingWalk-B4B | 7 pcs | 6/28/19 | 0.00 | 3.50 | Handfinish - 3 - 1 - B4B | ll 19-8-1       |
|                                    |       |         |      |      | Handfinish - 3 - 2 - B4B |                 |
|                                    |       |         |      |      | Handfinish - 3 - 3 - B4B |                 |
|                                    |       |         |      |      | Handfinish - 3 - 4 - B4B |                 |
|                                    |       |         |      |      | Handfinish - 3 - 5 - B4B |                 |
| 160 QC 3                           | 7 pcs | 6/28/19 | 0.00 | 0.00 | QC 3 - 10                |                 |
|                                    |       |         |      |      | QC 3 - 13                |                 |
|                                    |       |         |      |      | QC 3 - 15                |                 |
|                                    |       |         |      |      | QC 3 - 17                |                 |
|                                    |       |         |      |      | QC 3 - 18                |                 |
|                                    |       |         |      |      | QC 3 - 2                 |                 |
|                                    |       |         |      |      | QC 3 - 28                |                 |
|                                    |       |         |      |      | QC 3 - 3                 |                 |
|                                    |       |         |      |      | QC 3 - 30                |                 |
|                                    |       |         |      |      | QC 3 - 34                |                 |
|                                    |       |         |      |      | QC 3 - 36                |                 |
|                                    |       |         |      |      | QC 3 - 41                |                 |
|                                    |       |         |      |      | QC 3 - 51                |                 |
|                                    |       |         |      |      | QC 3 - 58                |                 |
|                                    |       |         |      |      | QC 3 - 59                |                 |
|                                    |       |         |      |      | QC 3 - 68                |                 |
|                                    |       |         |      |      | QC 3 - 9                 |                 |
|                                    |       |         |      |      | QC 3 - 40                |                 |
|                                    |       |         |      |      | QC 3 - 19                |                 |
|                                    |       |         |      |      | QC 3 - 43                |                 |
|                                    |       |         |      |      | QC 3 - 24                |                 |
| 170 Packaging 3-1 - Stock - B4B    | 7 pcs | 6/28/19 | 0.00 | 0.00 | Packaging 3 - 1 - B4B    | ll<br>8/15/2019 |
|                                    |       |         |      |      | Packaging 3 - 2 - B4B    |                 |
|                                    |       |         |      |      | Packaging 3 - 3 - B4B    |                 |
|                                    |       |         |      |      | Packaging 3 - 4 - B4B    |                 |
|                                    |       |         |      |      | Packaging 3 - 5 - B4B    |                 |
|                                    |       |         |      |      | Packaging 3 - 6 - B4B    |                 |
|                                    |       |         |      |      | Packaging 3 - 7 - B4B    |                 |
|                                    |       |         |      |      | Packaging 3 - 8 - B4B    |                 |
|                                    |       |         |      |      | Packaging 3 - 9 - B4B    |                 |
|                                    |       |         |      |      | Packaging 3 - 10 - B4B   |                 |
|                                    |       |         |      |      | Packaging 3 - 11 - B4B   |                 |
|                                    |       |         |      |      | Packaging 3 - 12 - B4B   |                 |
|                                    |       |         |      |      | Packaging 3 - 13 - B4B   |                 |
|                                    |       |         |      |      | Packaging 3 - 14 - B4B   |                 |

DAS  
40  
9-89

DAS  
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9-89

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|  |  |  |  |  |                        |           |
|--|--|--|--|--|------------------------|-----------|
|  |  |  |  |  | Packaging 3 - 15 - B4B |           |
|  |  |  |  |  | Packaging 3 - 16 - B4B |           |
|  |  |  |  |  | Packaging 3 - 17 - B4B |           |
|  |  |  |  |  | Packaging 3 - 18 - B4B |           |
|  |  |  |  |  | Packaging 3 - 19 - B4B |           |
|  |  |  |  |  | Packaging 3 - 20 - B4B |           |
|  |  |  |  |  | Packaging 3 - 21 - B4B |           |
|  |  |  |  |  | Packaging 3 - 22 - B4B |           |
|  |  |  |  |  | Packaging 3 - 23 - B4B |           |
|  |  |  |  |  | Packaging 3 - 24 - B4B |           |
|  |  |  |  |  | Packaging 3 - 25 - B4B |           |
|  |  |  |  |  | Packaging 3 - 26 - B4B |           |
|  |  |  |  |  | Packaging 3 - 27 - B4B |           |
|  |  |  |  |  | Packaging 3 - 28 - B4B |           |
|  |  |  |  |  | Packaging 3 - 29 - B4B |           |
|  |  |  |  |  | Packaging 3 - 30 - B4B |           |
|  |  |  |  |  | Packaging 3 - 31 - B4B |           |
|  |  |  |  |  | Packaging 3 - 32 - B4B |           |
|  |  |  |  |  | Packaging 3 - 33 - B4B |           |
|  |  |  |  |  | Packaging 3 - 34 - B4B |           |
|  |  |  |  |  | Packaging 3 - 35 - B4B |           |
|  |  |  |  |  | Packaging 3 - 36 - B4B |           |
|  |  |  |  |  | 180 QC 21 - SA         | 7         |
|  |  |  |  |  |                        | pcs       |
|  |  |  |  |  | 6/28/19                | 0.00 0.00 |
|  |  |  |  |  | QC 21 - SA - 21        |           |
|  |  |  |  |  | QC 21 - SA - 70        |           |
|  |  |  |  |  | QC 21 - SA - 53        |           |

Part Op 110 - (Small Fab) 1- ASSEMBLE FIXTURE DT10384 WITH BLOC "A","B" AND "C" TO MANUFACTURE D5491-041. 2- Descriptions: ASSEMBLE D5273-043 FITTINGS TO D5491-1 STEP WITH PROSEAL AS PER DWG A/R PROSEAL: \_\_\_\_\_ 3- INSERT ALL PARTS TOGETHER IN FIXTURE DT10384 AND TRANSFER DRILL HOLES USING DT10186 FOR D5499-1 AND DT 10185 FOR D5499-1 AS PER DWG AND NOTES 8,9. 4- DISASSEMBLE AND DEBURR. 5- a) USE DT10170 DRILL JIG TO DRILL NUT PLATE HOLES IN D5627-1 TUBE AS PER DWG. b) DEBURR c) TOUCH UP HOLES WITH ALODINE ONLY d) INSTALL NUTPLATES IN TUBES 6- TOUCH UP HOLES WITH ALODINE ONLY ON D5627 AND D5273-041 FITTINGS. 7- USE DT10384 TO RE-ASSEMBLE REST OF THE PARTS TOGETHER USING PROSEAL AS PER DWG A/R PROSEAL: \_\_\_\_\_ CURE TIME 24h: \_\_\_\_\_

120 - (QC5- Inspect part completeness to step on W/O)

130 - (Spray Paint / NDT Room) Prime and paint as per dwg. \*\*\*MASK SLOTS AS PER NOTE 10\*\*\* Primer 5189557 Paint 5192331

140 - (QC14- Inspect Spray Paint)

150 - (Wing Walk as per dwg QSI005 4.4 Batch \_\_\_\_\_) 1- MASK SCREWS AS PER DWG AND APPLY WING WALK AS PER DWG. 2- INSTALL PLACARD AS PER DWG. (NOTE11)

160 - (QC3- Inspect Part Finish)

170 - (Identify as per dwg & Stock Location: \_\_\_\_\_)

180 - (QC21- Final Inspection - Work Order Release)



## Job BOM

| Part / Item   | Component Name        | Quantity      | Operation                          | Container          |
|---------------|-----------------------|---------------|------------------------------------|--------------------|
| CR3212-4-05   | Cherry Rivet          | 42 Ea (6 ea)  | 110-Small Fab - 1                  | ST320<br>S100480   |
| CR3242-4-4    | Rivet                 | 56 Ea (8 ea)  | 110-Small Fab - 1                  | ST318<br>F104322   |
| D5273-043     | End Fitting Assembly  | 7 pcs (1 ea)  | 110-Small Fab - 1                  | ST227A<br>F144196  |
| D5291-041     | Radius Block Assembly | 21 pcs (3 ea) | 110-Small Fab - 1                  | ST151<br>F144620   |
| D5491-1       | Step Extrusion        | 7 pcs (1 ea)  | 110-Small Fab - 1                  | GAT8D<br>S125435   |
| D5499-2       | Aft Bracket Mount     | 7 pcs (1 ea)  | 110-Small Fab - 1                  | GA117<br>S180306   |
| D5625-1       | Receptacle            | 28 pcs (4 ea) | 110-Small Fab - 1                  | ST179<br>S112955   |
| D5627-1       | Tube                  | 7 pcs (1 ea)  | 110-Small Fab - 1                  | GA113<br>S174319   |
| D5629-041     | End Cap Assembly      | 7 pcs (1 ea)  | 110-Small Fab - 1                  | GA119<br>S178459   |
| MS21042L3     | Nut                   | 14 Ea (2 ea)  | 110-Small Fab - 1                  | ST303<br>S149299   |
| MS24694-S50   | Screw                 | 56 Ea (8 ea)  | 110-Small Fab - 1                  | ST084<br>S180307   |
| MS24694-S98   | Screw                 | 21 Ea (3 ea)  | 110-Small Fab - 1                  | ST283<br>S13197X12 |
| MS27039-1-10  | Screw                 | 7 Ea (1 ea)   | 110-Small Fab - 1                  | ST280<br>S157316   |
| MS27039-1-30  | Screw                 | 14 Ea (2 ea)  | 110-Small Fab - 1                  | ST6A300<br>S192398 |
| NAS1149D0332J | Washer                | 14 Ea (2 ea)  | 110-Small Fab - 1                  | ST064<br>S156763   |
| NAS1149D0363J | Washer                | 28 Ea (4 ea)  | 110-Small Fab - 1                  | ST064<br>S176545   |
| D2137         | Decal(No Step)        | 7 pcs (1 ea)  | 150-Handfinish - 3-1- WingWalk-B4B | S1911811           |

## Job Allocations

| Operation                          | Component Part | Required | Inventory | Allocated |
|------------------------------------|----------------|----------|-----------|-----------|
| 110-Small Fab - 1                  | CR3212-4-05    | 42       | 122       | 0         |
|                                    | CR3242-4-4     | 56       | 254       | 0         |
|                                    | D5273-043      | 7        | 12        | 0         |
|                                    | D5291-041      | 21       | 129       | 0         |
|                                    | D5491-1        | 7        | 0         | 0         |
|                                    | D5499-2        | 7        | 6         | 0         |
|                                    | D5625-1        | 28       | 56        | 0         |
|                                    | D5627-1        | 7        | 6         | 0         |
|                                    | D5629-041      | 7        | 5         | 0         |
|                                    | MS21042L3      | 14       | 1,770     | 0         |
|                                    | MS24694-S50    | 56       | 311       | 0         |
|                                    | MS24694-S98    | 21       | 115       | 0         |
|                                    | MS27039-1-10   | 7        | 341       | 0         |
|                                    | MS27039-1-30   | 14       | 10        | 0         |
|                                    | NAS1149D0332J  | 14       | 3,288     | 0         |
|                                    | NAS1149D0363J  | 28       | 1,314     | 0         |
| 150-Handfinish - 3-1- WingWalk-B4B | D2137          | 7        | 51        | 0         |

## Part Specifications

Specifications could not be found.

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Entered: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. \_\_\_\_\_

Route update only ☐

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                        |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------|--|
| Job: _____<br><br>Part No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/> | <b>DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/> </div> <div>           Eng. (Non-AW) <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Water Jet <input type="checkbox"/><br/>           Supplier <input type="checkbox"/><br/>           Quality <input type="checkbox"/> </div> </div> |  |                        |  |
| Date :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Sequence #:                                                                                                                       | QTY Affected :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | MRB (QSI042)           |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                   | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | Completed By           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  | Lead hand / Supervisor |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                        |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  | QC / QA Coordinator    |  |
| <b>Root Cause</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Operator <input type="checkbox"/><br/>           Manufacturing Process <input type="checkbox"/><br/>           Equip/Tooling <input type="checkbox"/><br/>           Handling/Presservation <input type="checkbox"/><br/>           Material <input type="checkbox"/><br/>           Product Improvement <input type="checkbox"/><br/>           Process Improvement <input type="checkbox"/><br/>           Human Factors <input type="checkbox"/> </div> <div> <input type="checkbox"/> Pressure/Forced<br/> <input type="checkbox"/> Bending<br/> <input type="checkbox"/> Crushing<br/> <input type="checkbox"/> Cracks<br/> <input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist<br/> <input type="checkbox"/> Marks/Chatter<br/> <input type="checkbox"/> Mislabeled         </div> <div> <input type="checkbox"/> Contamination<br/> <input type="checkbox"/> Misaligned/off center<br/> <input type="checkbox"/> BOM/Route<br/> <input type="checkbox"/> Broken/Damage/Defect<br/> <input type="checkbox"/> Incomplete/Unclear Instructions<br/> <input type="checkbox"/> Drill Holes<br/> <input type="checkbox"/> Fit/Function         </div> <div> <input type="checkbox"/> Power Loss/Surge<br/> <input type="checkbox"/> Folio/Program<br/> <input type="checkbox"/> Grain Direction<br/> <input type="checkbox"/> Weld<br/> <input type="checkbox"/> Wrong Stock Pulled<br/> <input type="checkbox"/> Out of Sequence<br/> <input type="checkbox"/> Off-set/Set-up         </div> <div> <input type="checkbox"/> Positioned Wrong<br/> <input type="checkbox"/> Outside Tolerance<br/> <input type="checkbox"/> Drawing<br/> <input type="checkbox"/> Finish<br/> <input type="checkbox"/> Part Lost/Missing<br/> <input type="checkbox"/> Misread         </div> </div> |                                                                                                                                   | <b>FAULT CATEGORY</b><br><br>Other/Details:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                        |  |



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Container No: S199494



Part: D5491-042

Job No: 196245

Serial No/Batch: S199494

Revision: B

Inspector:

Exp Date:

Instructions: Various STC's

Date: 07/22/19